



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Available online at  
**ScienceDirect**  
www.sciencedirect.com

Elsevier Masson France  
**EM|consulte**  
www.em-consulte.com



## Editorial

# Primary healthcare practitioners were in the front line to deal with COVID-19 and reorganize their practice to avoid inappropriate use of hospital services

## ARTICLE INFO

**Keywords:**  
COVID-19  
Primary care  
Care organization

## 1. Abbreviations

GP General Practitioner  
DCU Dedicated Care Unit

## 2. Introduction

In front of the COVID-19 disease and the current global pandemic [1,2], all health care professionals had to adapt their practice. In most developed countries, health care systems are hospital-centered. Many publications documented the impact of the pandemic on the hospitals.

## 3. Hospitals were reorganized around the COVID-19

In France the Fédération Hospitalière de France, in its assessment of the pandemic management by hospitals, did not mention primary care [1]. They described the reorganization around the COVID-19, increasing the capacity to accept more patient in medicine wards, and in emergency departments. Hospitals deprogrammed their activities and postponed their consultations/operations on a massive scale, regardless of the region and its exposure to the epidemic, in order to have resources and equipment for the management of the epidemic [1]. They had the support of emergency medical communication centers that redirected patients at home and towards community medicine [2].

The French Senate set up an evaluation committee to assess the pandemic and guide the healthcare systems to alleviate further

epidemics [3]. This 456 pages report (Tome 1) described all difficulties from the lack of mask to the biological tests, etc... It mainly focused on the hospital place in the pandemic care. A part of the report was dedicated to primary care: *"At the beginning of its work, the commission of inquiry wanted to hear the voices of liberal health professionals and hospital practitioners "in the field" directly involved in the management of the health crisis. The feeling of isolation, incomprehension and even anger emerge from the testimonies: for the first, "the place of primary care in the system was simply not thought out". If the shortage of personal protective equipment has been detrimental to the early intervention of primary care providers and, first and foremost, the attending physician in terms of care, the official instruction inviting patients to contact the Samu-centre 15 has reinforced this marginalization. This has been accompanied by a saturation of calls to the centres 15, which has suffered from deficiencies in the coordination of the various emergency actors. Although the shortcomings of the city-hospital link were cruelly felt, cooperation initiatives between actors, often isolated, are assets on which to capitalize. Similarly, the beginnings of the structuring of urban actors have proved fruitful, as has, within certain limits, the accelerated deployment of telehealth."*

## 4. Primary care physicians were on the front line in all countries

Primary care is organized differently according to each health care system. The experience of general practitioners in China is interesting but cannot be transferred to European health care systems [4]. In China, GPs were the first line of defence in the battle against infectious diseases. They guard checkpoints to protect the community (railway stations, airports,...), locally cooperate with the community police, detect and treat cases from door to door, and provided continuity of care to discharged patients. As in most countries, in the UK, the practice of GPs was changed [5]. In time of crisis, priority was given to patient care. Health care professionals talked more with colleagues, focused on priorities for the patients, prioritizing clinical importance disregarding low-value bureaucratic work, with collegiality and solidarity, etc... The professions will not be the same after the pandemic.

In France, GPs had to locally organize their network and many initiatives were observed to maintain the follow-up of patients.

Saint-Lary et al. showed that of 5425 GPs, 70.9% changed their activity, 66.5% increased remote consultations and 42.7% created a specific pathway for probable patients with COVID-19. Among the GPs who changed their practice, 91.7% gave more answers by phone, 27.6% by email and 30.7% increased the use of video consultations [6].

## 5. COVID-19 Dedicated Care Unit in temporary locations

In the Haute-Garonne department (France) primary care health professionals (GPs and nurses) have developed a collaborative approach with, on the one hand, hospital health professionals (emergency and infectiology services) and medical regulatory services and, on the other hand, local health, research and governmental stakeholders. This department has 1,4 million inhabitants, and one large academic hospital.

From the first week of the health crisis, the stakeholders whose representative of GPs met rapidly to create different care pathways and a digital medical monitoring tool in order to overcome the usual administrative constraints. They created 60 COVID-19 Dedicated Care Unit (DCU) in temporary locations (city hall, gymnasium, public schools...) all over the department, with GPs and nurses coordinators to manage the organization. The mayors of the towns in the department have provided free locations for DCUs. The health insurance allowed an advance exemption from consultation fees for COVID-19 suspected patients. The local French Medical Association (CDOM, Conseil Départemental de l'Ordre des Médecins) funded the protective equipment and the medical supplies for the DCUs. The Regional Health Agency of Occitanie funded the digital tool and the coordination activities of GPs and nurses coordinators of the DCUs.

If a patient was not suspected of having COVID-19, he had the choice of being seen by his or her GP the usual way by face-to-face consultation, or by teleconsultation. If the patient was suspected of having COVID-19, a teleconsultation could be proposed. If the condition of a patient suspected of having COVID-19 justified a face-to-face consultation: either the patient was received by his or her referring GP in the practice organised with a specific COVID-19 area (dedicated waiting and consultation rooms with protective equipment) or he or she was referred to a COVID-19 DCU.

A digital tool, named COVHO, was secure, shared between hospital and primary care and regularly updated according to the needs of health professionals. The tool made it possible to remind COVID-19 severity criteria, to comply with local recommendations for medical care, to refer the patient to home or hospital services depending on the situation and to provide patient follow-up.

Health monitoring and data collection were carried out by GPs researchers and public health researchers of the University of Toulouse via the digital tool.

The CDOM had a major place in our organization with several roles:

- coordination of the different care pathways (weekly videoconferences between the stakeholders);
- operation of the DCUs (weekly videoconferences between GPs coordinators, purchase and distribution of stocks of the protective equipment);
- regular information concerning recommendations and psychological assistance to physicians if necessary;
- collaborations with other health professionals;
- links with the local media in order to release reliable and updated information to the population.

## 6. Inappropriate use of hospital services was probably avoided

The rapid evolution of the pandemic is putting a lot of pressure on health professionals who have to adapt to frequent updates of care recommendations. However, there are early indications that this organization in our department allows access to care for all patients while respecting safety conditions for healthcare professionals. The first strengths we have identified are the rapid mobilization of primary care actors, the good performance of existing collaborations between the professionals in various sectors (care, research and administration) and the use of a dedicated digital tool. These key elements guarantee the efficiency of primary care, which remains the “gate-keeper” of a care pathway adapted to the patient's needs. In this way, we avoided inappropriate use of hospital services and continued to provide routine care for other patients.

Most of the “DCUs” closed in February 2021 and some locations were transformed into COVID-19 vaccination centres.

### Disclosure of interest

The authors declare that they have no competing interest.

### Funding sources

Not applicable

### Acknowledgments

We would like to thank all the healthcare professionals and the administrative and research bodies of the Haute Garonne department and the Occitanie region, France.

### References

- [1] Barro K, Malone A, Mokede A, Chevance C. Gestion de l'épidémie de la COVID-19 par les établissements publics de santé - analyse de la Fédération hospitalière de France. *J Chirurg Visc* 2020;157:520-4.
- [2] Petit A, Berton L, de Bastard L, Ben Hellal A, Prudhomme F, Richard O. Collaboration ville-aide médicale urgente-hôpital à l'épreuve de la crise Covid-19, l'expérience des Yvelines. *Ann Fr Med Urgence* 2020;10:212-7.
- [3] Milon A, (Président), Deroche C, Jomier B, Vermeillet S. (Rapporteurs), Rapport fait au nom de la commission d'enquête (1) pour l'évaluation des politiques publiques face aux grandes pandémies à la lumière de la crise sanitaire de la covid-19 et de sa gestion; 2020. Available on: <http://www.senat.fr/notice-rapport/2020/r20-199-1-notice.html>.
- [4] Li DKT, Zhu S. Contributions and challenges of general practitioners in China fighting against the novel coronavirus crisis. *Fam Med Community Health* 2020;8(2):e000361.
- [5] McCartney M. Medicine: before COVID-19, and after. *The Lancet* 2020. Available on: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30756-X/Abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30756-X/Abstract).
- [6] Saint-Lary O, Gautier S, Breton JL, Gilberg S, Frappé P, Schuers M, et al. How GPs adapted their practices and organisations at the beginning of COVID-19 outbreak: a French national observational survey. *BMJ Open* 2020;10(12):e042119.

L. Gimenez<sup>a,b,\*</sup>, J. Dupouy<sup>a,b</sup>, P. Ricordeau<sup>c</sup>, P. Durand<sup>c</sup>, M. Davila<sup>d</sup>, M. Bensoussan<sup>e</sup>, J.-F. Bouscarain<sup>f</sup>, M.-E. Rouge-Bugat<sup>a,b</sup>, S. Oustric<sup>a,b,g</sup>  
<sup>a</sup>Département Universitaire de Médecine Générale-Université Toulouse III Paul Sabatier, 133, route de Narbonne, 31062 Toulouse Cedex, France  
<sup>b</sup>UMR 1027 Inserm, Université Toulouse III Paul Sabatier, Faculté de médecine, 37, allées Jules-Guesde, 31000 Toulouse, France  
<sup>c</sup>Agence Régionale de Santé (ARS) Occitanie, 26-28 Parc club du Millénaire et 1025, rue Henri-Becquerel, 34067 Montpellier, France  
<sup>d</sup>Caisse Primaire d'Assurance Maladie (CPAM) de Haute Garonne, 3, boulevard du Professeur Léopold Escande, 31000 Toulouse, France  
<sup>e</sup>Union Régionale des Professionnels de Santé d'Occitanie-Médecins Libéraux (URPS-ML), 1300, avenue Albert Einstein, 34000 Montpellier, France

<sup>†</sup>Union Régionale des Professionnels de Santé d'Occitanie–Infirmiers Libéraux (URPS–IL), 285, rue Alfred-Nobel, 34000 Montpellier, France  
<sup>‡</sup>Conseil Départemental de Haute Garonne de l'Ordre des Médecins, 9, avenue Jean-Gonord, 31500 Toulouse, France

Received 27 May 2021  
Accepted 1st June 2021  
Available online

\*Corresponding author

E-mail address: [laetitia.gimenez@dumg-toulouse.fr](mailto:laetitia.gimenez@dumg-toulouse.fr) (L. Gimenez)